



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/513,855	02/25/2000	Yuichi Arita	21.1952/GMG	7401
21171	7590	07/05/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			CHANG, SUNRAY	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/513,855

Applicant(s)

ARITA ET AL.

Examiner

Sunray Chang

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23, 25-44 and 54-56 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-23, 25-44 and 54-56 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 August 2004 and 25 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Art Unit: 2121

DETAILED ACTION

1. This office action is in responsive to the paper filed on June 27, 2005.
2. Claims 1 – 23, 25 – 44 and 54 – 56 are presented for examination.
Claims 1 – 23, 25 – 44 and 54 – 56 are rejected.

Drawings

3. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Drawings 14 – 19, 24, 27, 29 – 31, and 34 – 37 fail to clearly point out the subjects matter in claims 1 – 23, 25 – 44 and 54 – 56.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following rejections are advanced against the claims as best interpreted.

5. **Claims 1 – 23, 25 – 44 and 54 – 56 are rejected under 35 U.S.C. 102(b)** as being anticipated by AutoCAD (AutoCAD User's Guide, Autodesk Dec 5th, 1997, and referred to as AutoCAD hereinafter).

Regarding independent claim 1, AutoCAD teaches management means [creating, editing, attaching, Page 438 – 439] for managing attribute information of parts [extracts information from the drawing, Page 441, Line 4] and arranging information [orders given by the template file, Page 441, Line 8] of a set displaying plane for making a body section defined based on a plane of one of a parts [3D drawing with front and back clipping planes, Page 532, Figs]; implementing means for generating a three-dimensional section of the body cut by the set displaying plane according to the management data of the management means [The previous illustration shows a datum reference frame verifying the dimensions of the part, tertiary datum plane, secondary datum plane, Primary datum plane, Page 426, Line 1, Fig.], and for displaying the three dimension section with the set displaying plane on the display screen [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3]; and up-date means [editing attributes, Page 440, Line 1] for up-dating the arranged information [edit attributes, Page 440, Line 2] managed by the management means [creating, editing, attaching, Page 438 – 439] by corresponding to the transfer or rotation [Rotating in 3D, Page 554, Line 5] of the set displaying plane [rotate a 3D object about an axis, Page 554, Line 11].

Regarding independent claim 2, AutoCAD teaches management means [creating, editing, attaching, Page 438 – 439] for managing attribute information of parts [extracts information from the drawing, Page 441, Line 4] and one or plural kinds of attribute information [extracts information from the drawing, Page 441, Line 4] of set displaying plane for making a body section with the relation between the parts and the attribute information [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3]; implementing means for generating a three-dimensional section of the body cut by the set displaying plane according to the management data of the management means [The previous illustration shows a datum reference frame verifying the dimensions of the part, tertiary datum plane, secondary datum plane, Primary datum plane, Page 426, Line 1, Fig.], and for displaying the three dimension section with the set displaying plane on the display screen [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3]; and up-date means [editing attributes, Page 440, Line 1] for up-dating the arranged information [edit attributes, Page 440, Line 2] managed by the management means [creating, editing, attaching, Page 438 – 439] by corresponding to the transfer or rotation [Rotating in 3D, Page 554, Line 5] of the set displaying plane [rotate a 3D object about an axis, Page 554, Line 11].

Regarding dependent claims 3 and 26, AutoCAD teaches implementing means [view menu, Page 532, Line 2] displays an operating plane [3D Dynamic View, Page 532, Line 3] for operating the set displaying plane corresponding [clipping planes, Page 532, Line 1].

Regarding dependent claims 4 and 27, AutoCAD teaches a sign board [DVIEW prompt, Page 532, Line 9] corresponding to the set displaying plane [clipping planes, Page 532, Line 10] and containing character strings [entering a value, Page 532, Line 10] for distinguishing the set displaying plane [for distance from the target, Page 532, Line 11] and containing a relation between the set displaying plane, if there is the relation [dragging the slider bar, Page 532, Line 10].

Regarding dependent claims 5 and 28, AutoCAD teaches implementing means [view menu, Page 532, Line 2] displays the set displaying plane [clipping planes, Page 532, Line 10] with the frame of the set displaying plane [clip front/back dash edge, Up Fig., Page 532].

Regarding independent claims 6 and 29, AutoCAD teaches a device for displaying a body section in a virtual three-dimensional space or a set displaying plane by a computer [3D drawing with front and back clipping planes, P532 top figure] comprising: management means [creating, editing, attaching, Page 438 – 439] for managing attribute information of parts [extracts information from the drawing, Page 441, Line 4] and one or plural kinds of attribute information [extracts information from the drawing, Page 441, Line 4] of set displaying plane for making a body section with the relation between the parts and the attribute information

Art Unit: 2121

[Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3]; implementing means for generating a three-dimensional section of the body cut by the set displaying plane according to the management data of the management means [The previous illustration shows a datum reference frame verifying the dimensions of the part, tertiary datum plane, secondary datum plane, Primary datum plane, Page 426, Line 1, Fig.], and for displaying the three dimension section with the set displaying plane on the display screen [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3]; or displaying the set displaying plane [clipping planes, Page 532, Line 10] with a transparent color [transparent, Up Fig., Page 532], when the three-dimensional section is not displayed [further cited down side figure on Page 532, view w/o hide option].

Regarding dependent claims 7 and 30, AutoCAD teaches implementing means [view menu, Page 532, Line 2] displays the set displaying planes [clipping planes, Page 532, Line 10] with the same transparent color [transparent, Up Fig., Page 532], when the relation information is defined between the set planes [+2 ~ -2, Up Fig., Page 532].

Regarding dependent claims 8 and 31, AutoCAD teaches the up-date means [Modify menu, Page 554, Line 12] updates the child information [3D operation, Page 554, Line 12] with the parent information [the object, Page 554, Line 13] according to the change of the parent

Art Unit: 2121

information [the object, Page 554, Line 13], when the relation between the parent and child is defined [specify start point and endpoint, Page 554, Line 14]; the implementing means transfers or rotates [rotate 3D, Page 554, Line 12] the child plane [3rd Fig, Page 554] corresponding to the transfer or rotate [rotate 3D, Page 554, Line 12] of the parent plane [1st Fig, Page 554].

Regarding dependent claims 9 and 32, AutoCAD teaches edit means [Modify menu, Page 554, Line 12] for editing the relation information [3D operation, Page 554, Line 12] displayed on the screen by user interfacing with the screen [paper space view, Fig., Page 476].

Regarding dependent claims 10 and 33, AutoCAD teaches generating means [view menu/3D Dynamic view, Page 532, Line 2] for generating a new set displaying plane [clipping planes, Page 532, Line 10] according to a request [choose, Page 532, Line 3] for generating a set displaying plane [clipping planes, Page 532, Line 10] issued with a designation of a plane [objects, Page 532, Line 4] of one of the parts [Upper Fig., Page 532] by making the relation with the parts [Upper Fig., Page 532], or for generating a new set displaying plane [clipping planes, Page 532, Line 10] according to a request [choose, Page 532, Line 3] for generating a set displaying plane [clipping planes, Page 532, Line 10] issued with a designation of a registered plane [objects, Page 532, Line 4] by making the relation [Upper Fig., Page 532] with the registered plane [objects, Page 532, Line 4].

Regarding dependent claims 11 and 34, AutoCAD teaches second generating means [view menu/3D Dynamic view, Page 532, Line 2] for generating a new setting displaying plane

Art Unit: 2121

[clipping planes, Page 532, Line 10] containing a specific point by linking with the set displaying plane or an other set displaying plane that was generated immediately preceding the set displaying plane, from a specific point contained in the designated set displaying plane and parts [dragging the slider bar or entering a value for distance from the target, Page 532, Line 10].

Further explains, Figure on Page 529, “examples pf compass and axis tripod for various viewpoint”, teaches four different view points, combining with the Figure on Page 532, “3D drawing with front and back clipping planes”, one with ordinary skill in the art can get many different direction’s clipping for one object using AutoCAD.

Regarding dependent claims 12 and 35, AutoCAD teaches third generating means [view menu/3D Dynamic view, Page 532, Line 2] generating a new set displaying [clipping planes, Page 532, Line 10] by tracing path information set on a designated set displaying plane [clipping planes, Page 532, Line 10] from the path information, while making a relation information with the set displaying plane [dragging the slider bar or entering a value for distance from the target, Page 532, Line 10].

Regarding dependent claims 13 and 36, AutoCAD teaches fourth generating means [view menu/3D Dynamic view, Page 532, Line 2] for generating a new set displaying plane [clipping planes, Page 532, Line 10] by moving continuously [dragging the slider bar, Page 532, Line 10] the designated set displaying plane [clipping planes, Page 532, Line 10], by linking with the set displaying plane or an other set displaying plane that was generated immediately preceding the set displaying plane [entering a value for distance from the target, Page 532, Line

Art Unit: 2121

10], or the set displaying plane generated just before from a specific point contained in the designated set displaying plane and parts [dragging the slider bar or entering a value for distance from the target, Page 532, Line 10].

Regarding dependent claims 14 and 37, AutoCAD teaches existing range setting [entering a value for distance from the target, Page 532, Line 10] means for setting an allowable range of existence [entering a value for distance from the target, Page 532, Line 10] of the set displaying plane [clipping planes, Page 532, Line 10] for a set displaying plane [clipping planes, Page 532, Line 10].

Regarding dependent claims 15 and 38, AutoCAD teaches section direction setting means [setting a viewing direction, Page 526, Line 5] for setting the section direction of a body [set a viewing direction, Page 526, Line 5] to the set display plane [clipping planes, Page 532, Line 10].

Regarding dependent claims 16 and 39, AutoCAD teaches the section direction setting means [setting a viewing direction, Page 526, Line 5] sets the cutting direction of the body [set a viewing direction, Page 526, Line 5] depending to the existing position of the set displaying plane [clipping planes, Page 532, Line 10].

Regarding dependent claims 17 and 40, AutoCAD teaches arranging means for arranging additional parts [pyramid, Square, Upper Fig., Page 532] or arranging a region [+2 ~

Art Unit: 2121

+4 and -2 ~ -4, Upper Fig., Page 532] on the set displaying plane [clipping planes, Page 532, Line 10].

Regarding dependent claims 18 and 41, AutoCAD teaches check means [selecting objects, Page 228, Line 16] for checking an interference [passes through, Page 231, Line 11] between one or plural of parts [all the objects, Page 231, Line 11], which move [remove, Page 234, Line 24] with the set displaying plane [rectangular selection area, Page 230, Line 2], and another parts [upper Fig., Page 230].

Regarding dependent claims 19 and 42, AutoCAD teaches deciding means [viewpoint presets, upper Fig., Page 527] for deciding, whether the two-dimensional section and the three dimensional section [Fig.'s, Page 527] are controlled with linkage or no-linkage, when the deciding means decides the linkage control, the implementing means [view menu, Page 532, Line 2] generates the two-dimensional section of the body cut [clip, Page 532, Line 7] by the set displaying plane [clipping planes, Page 532, Line 10] for generating the three-dimensional section [3D Dynamic View, Page 532, Line 3], when the deciding means decides no-linkage control, the implementing means [view menu, Page 532, Line 2] generates the two-dimensional section cut [clip, Page 532, Line 7] by a set display plane [plan view, Page 528, Line 10] selected from the set displaying planes [clipping planes, Page 532, Line 10], and displays the two-dimensional section [XY plane, Page 527, Line 3] on the same screen displaying the three-dimensional section [angle in the XY plane, Page 527, lower Fig.]

Art Unit: 2121

Regarding dependent claims 20 and 43, AutoCAD teaches the implementing means [view menu, Page 532, Line 2] displays the two-dimensions [XY plane, Page 527, Line 3], showing the corresponding a part of the three-dimensional section [Fig.'s, Page 527].

Regarding dependent claims 21 and 44, AutoCAD teaches the implementing means [view menu, Page 532, Line 2] displays the two-dimensional section and the three-dimensional section [Fig.'s, Page 527], showing a position of a designated viewpoint [XY plane, Page 527, Line 3].

Regarding independent claim 22, AutoCAD teaches managing management data [creating attributes, editing attributes, attaching attributes, Page 438 – 439] of one or plural set displaying planes [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3] for cutting the body to make the section and of the attribute information of parts [3D drawing with front and back clipping planes, Page 532, Figs] and of set displaying planes with the relation information with the parts and set displaying plane, which are made by the same data structure [The previous illustration shows a datum reference frame verifying the dimensions of the part, tertiary datum plane, secondary datum plane, Primary datum plane, Page 426, Line 1, Fig.]; registering the management data [create a template file, Page 441, Line 2]; displaying the section and set displaying plane with the relation information [3D drawing with front and back clipping planes, Page 532, Figs]; and updating the managing of the management data [creating attributes, editing attributes, attaching

Art Unit: 2121

attributes, Page 438 – 439] by arranging the relation among the parts and the set displaying plane [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3] managed management data by corresponding to the designation of transfer or rotation [Rotating in 3D, Page 554, Line 5] of the set displaying plane or parts [rotate a 3D object about an axis, Page 554, Line 11].

Regarding independent claim 23, AutoCAD teaches a computer-readable storage for storing the program for controlling a computer to perform displaying a body section in a virtual three-dimensional space [AutoCAD], by: accessing to access a managing unit managing the management data of attribute information [creating attributes, editing attributes, attaching attributes, Page 438 – 439] of parts [3D drawing with front and back clipping planes, Page 532, Figs] and the attribute information of set displaying planes [Spherical Projection warps the texture both horizontally and vertically. The top edge of the texture map is compressed to a point at the “north pole” of the sphere, as is the bottom edge at the “south pole”, Page 614, Line 1 – 3] with the relation information between the parts and set displaying plane [Fig. Page 532], which are the same data structure [template file, Page 441], wherein the attribute information of parts comprises location and posture information [template file, Page 441] and the attribute information of set displaying planes comprises a direction of the plane [template file, Page 441]; displaying the parts related by the managing data [Fig. Page 527], the set displaying plane and the three dimensional section of the parts cut by the set displaying plane [Top Fig. Page 426]; and updating the managing data [create a rectangular array of objects 1 – 9, Page 555] by

Art Unit: 2121

arranging the relation among the parts and the set displaying plane managed data [Fig., Line 1 – 13, Page 532] by corresponding to the transfer or rotation of the set displaying plane or parts [Rotating in 3D, Page 554, Line 5].

Claim 24 was cancelled by applicants.

Regarding independent claim 25, AutoCAD teaches a device for displaying a body section in a virtual three-dimensional space by a computer [Fig. Page 476]; a management unit managing attribute information of parts and one or plural kinds of attribute information of set displaying plane [creating attributes, editing attributes, attaching attributes, Page 438 – 439] for making a body section by definition of the relation [create a rectangular array of objects 1 – 9, Page 555] between the parts and the attribute information [template file, Page 441] with the same data structure for the parts [template file, Page 441]; wherein the attribute information comprises location information and posture information [template file, Page 441], and the attribute information of the set displaying plane comprises direction of the set displaying plane [template file, Page 441]; and an implementing unit generating a three-dimensional section [Fig. Page 476] of the body cut by the set displaying plane [Top Fig. Page 426] according to the management data of the management unit [template file, Page 441], and for displaying the three-dimensional of a parts section cut by the set displaying plane [Top Fig. Page 426], the set displaying plane and the parts related to each other on the display screen [Top Fig. Page 532]; and an update unit updating the managed data of the management unit [editing. Page 440] by arranging the relation among the parts and the set displaying plane managed data [clipping planes, Page 532] by

Art Unit: 2121

corresponding to the transfer or rotation of the set displaying plane or parts [Rotating in 3D, Page 554, Line 5].

Claims 45 – 53 were cancelled by applicants.

Regarding dependent claim 54, AutoCAD teaches, the managing data comprises ID [numeric attribute tag, Page 441] of the data record [template, Page 441], name [character, Page 441], kinds of parts [type, Page 441], the reference plane and the set displaying plane [Top Fig., Page 532], pointers to parents of the parts [Fig., Page 529], a reference plane [Top Fig., Page 532], fundamental positions [Top Fig., Page 532], fundamental postures [Top Fig., Page 532], positions relative to parents [Top Fig., Page 532], postures relative to parents [Top Fig., Page 532], allowable regions of existence [Top Fig., Page 532], directs of set displaying plane [Top Fig., Page 532].

Regarding dependent claim 55, AutoCAD teaches, a setting displaying plane, [top end of the cylinder in Fig. 426] having the same plane direction with the plane direction of a reference plane, [the scaled plane of Top Figure, Page 532] has a cross-section cut [Top Fig., Page 532] with the set displaying plane [front and back clipping plane, Line 5, Page 532; Top Fig., Page 532] display parts existing either far from or within the distance from [line of sight, Fig., Page 532] the set displaying plane [front and back clipping plane, Line 5, Page 532] in a direction of the reference plane [clip, Line 4, Page 532];

Art Unit: 2121

Examiner further explains, the object in the top figure of Page 532 could be the cylinder in Top Figure of Page 426.

Regarding dependent claim 56, AutoCAD teaches, upon plural set displaying planes having all have the same plane directions [front clipping plane, Line 5, Page 532], a cut section cut with the farthest set displaying plane from the referred plane in direction of the reference plane is displayed [Top Fig., Page 532]; upon plural set displaying planes having inverse plane directions [back clipping plane, Line 5, Page 532], a cut section cut with the nearest set displaying plane from the referred plane in direction of the reference plane is displayed [Top Fig., Page 532]; and upon one or more than one set displaying planes [front clipping plane, Line 5, Page 532] having the same plane direction with the reference plane [clip, Line 4, Page 532] and one or more than one set displaying planes having the inverse plane direction [back clipping plane, Line 5, Page 532] with the reference plane [clip, Line 4, Page 532] exist, the cross section displays parts existing between the farthest set displaying plane or the same plane direction from the reference plane and the nearest set displaying plane of the inverse plane direction from the reference plane [Top Fig., Page 532].

Response to Amendment

Drawings

6. No new drawing has been received.

Claim Objections

7. The amendment overcomes the objection for claims. Examiner has withdrawn the claim objections.

Claim Rejections - 35 USC § 112

8. Applicants' amendment overcomes 112 Rejections; Examiner has withdrawn the 112, First Paragraph Rejections.

Claim Rejections - 35 USC § 102

9. Over all, Applicants argue that AutoCAD does not disclose "a set displaying plane" is disagreed with. AutoCAD teaches a set displaying plane [top Fig., Page 532]. Based on applicants' explanations of "a set displaying plane" in the amendment filed on May 2nd 2005, generating a three-dimensional section of the body cut by the set-displaying plane ... and for displaying the three-dimension section with the set displaying plane on the display screen. Basically, the top Figure on Page 532 of AutoCAD discloses every single feature mentioned above.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

Art Unit: 2121

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang
Patent Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office



Anthony Knight
Supervisory Patent Examiner
Group 3600

June 27, 2005